Figure 1A

Figure 1B

(421)   430   440   450

^{422} ^{438}

SNDLSWLSLD VSAAFYHI$_P$PL HPAAMPHLLIV GSSGL^{D}SRYVA

      Domain A

   HBsAg *G112R*   *T123P*   *Y/F134S*   *D144E G145R*

460   470   480   490

    ^{464} ^{466} ^{477} ^{488} ^{499}

RLSS^T_NSR$_N$NI*N ^N_YHQ^Y_HG$_R$***^D_NLH ^D_NY$_S$CSR^D_QLYVS L^L_MLLY^K_QTY$_F$G^R_W

   HBsAg   *A157D*   *E164D*   *F170L*

500   510   520   530

          ^{512} ^{519} $^{523/524/526/528/530}$

KLHL^Y_LS$_A$HPII$_V$ LGFRKI$_L$PMG^V_G GLSPFLLAQF TSAI^C_LS$_A$V$_M$V$_T$R$_C$R

      Domain B

          W196L   *W199S*

 HBsAg   *M195I/S196W M198I S204T*   *S210R*

540   550   560

    ^{546} ^{550} ^{553} ^{559} ^{565}

AF^F_PHCL^V_AV^{F}S$_A$Y MDD^V_LM$_M$VLGA^K_RS$_T$ ^V_GQ$_E$H^L_SR^{E}S$_F$L^Y_FT$_A$S$_A$

      Domain C

570   580   590

     ^{575}

^I_VT^C_NS^F_VLL^S_DL$_V$GI HLNP^N_QKTKRW GYSLNFMGY^I_VI G

      Domain D   Domain E

# Figure 2
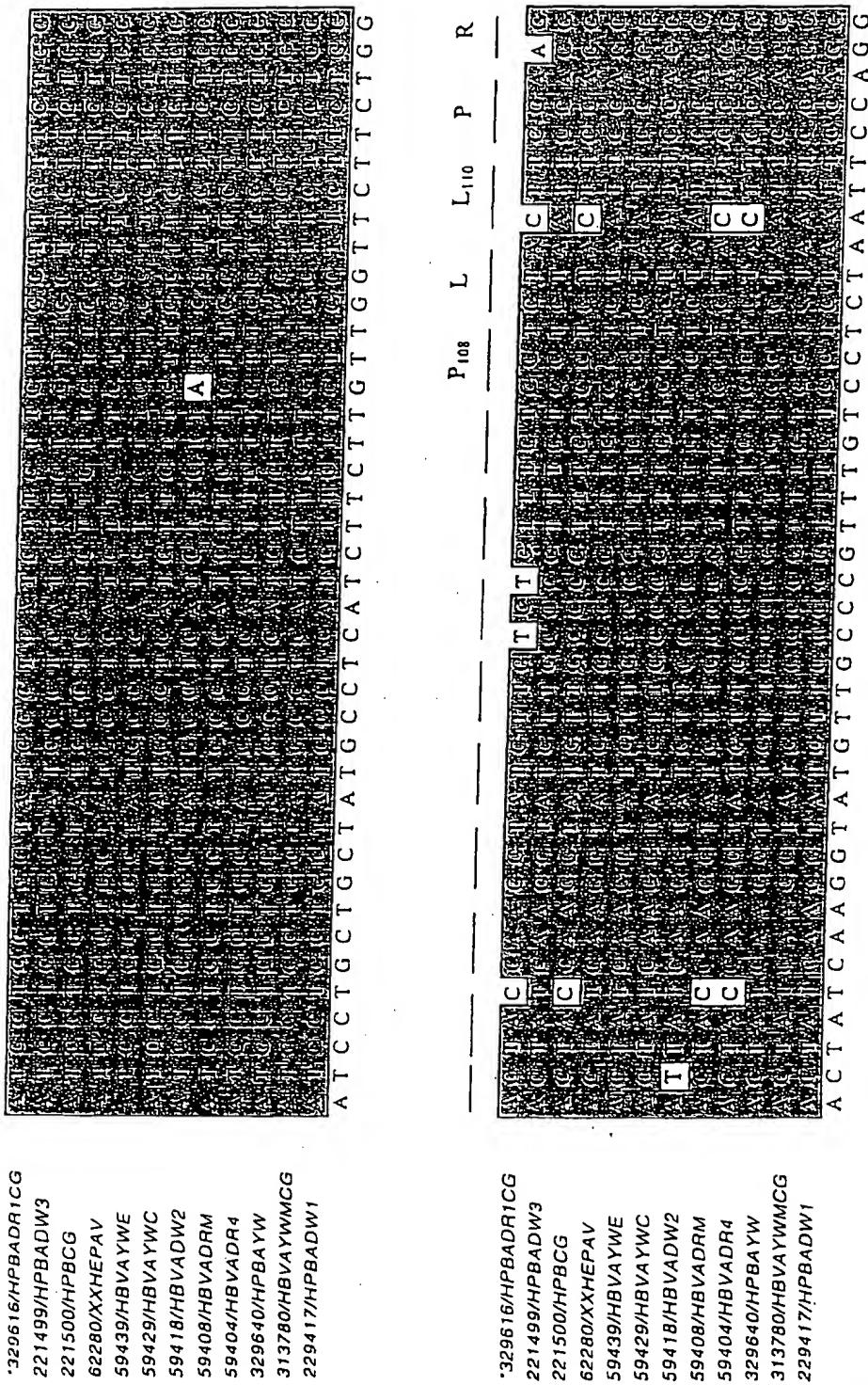
Figure 3
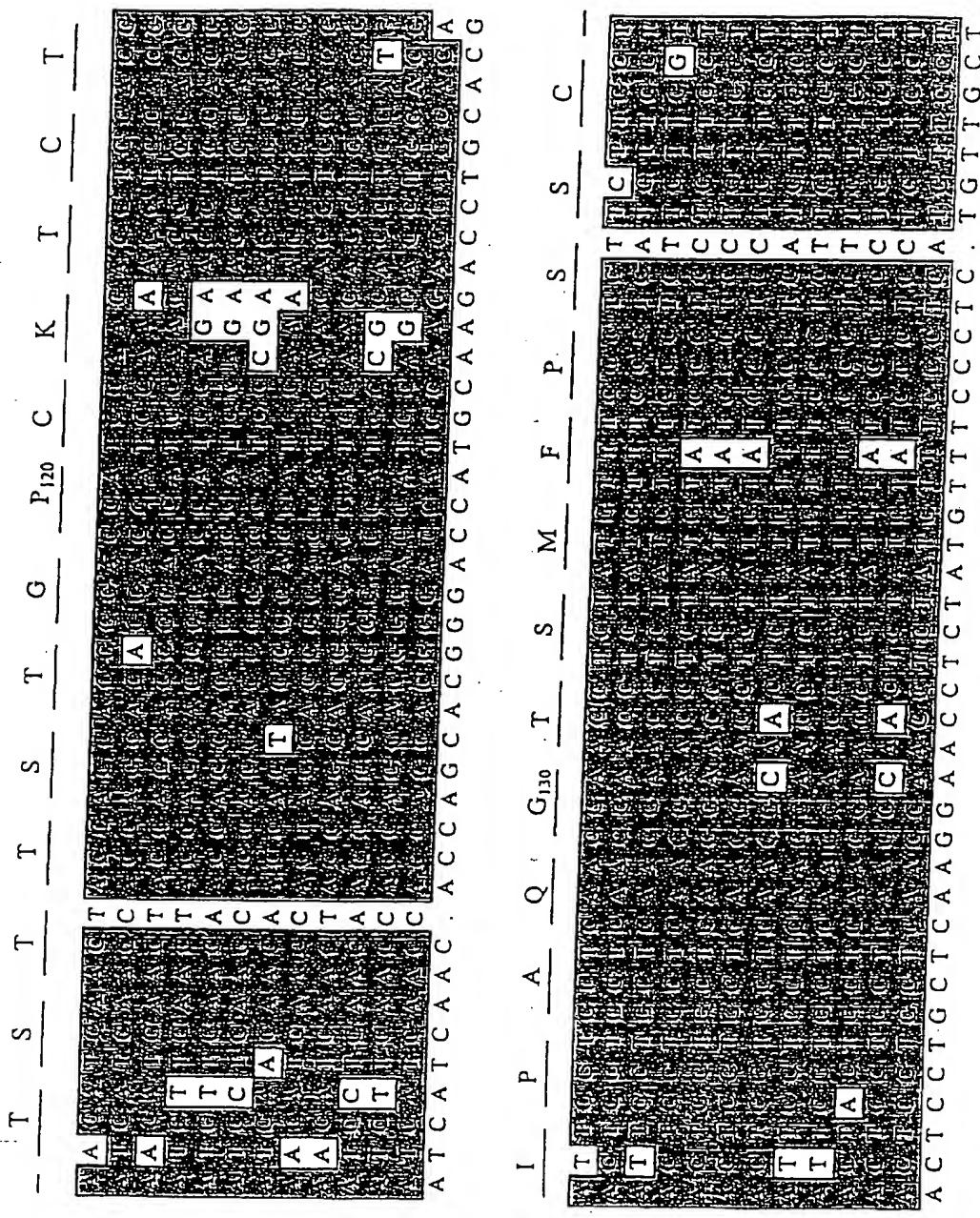
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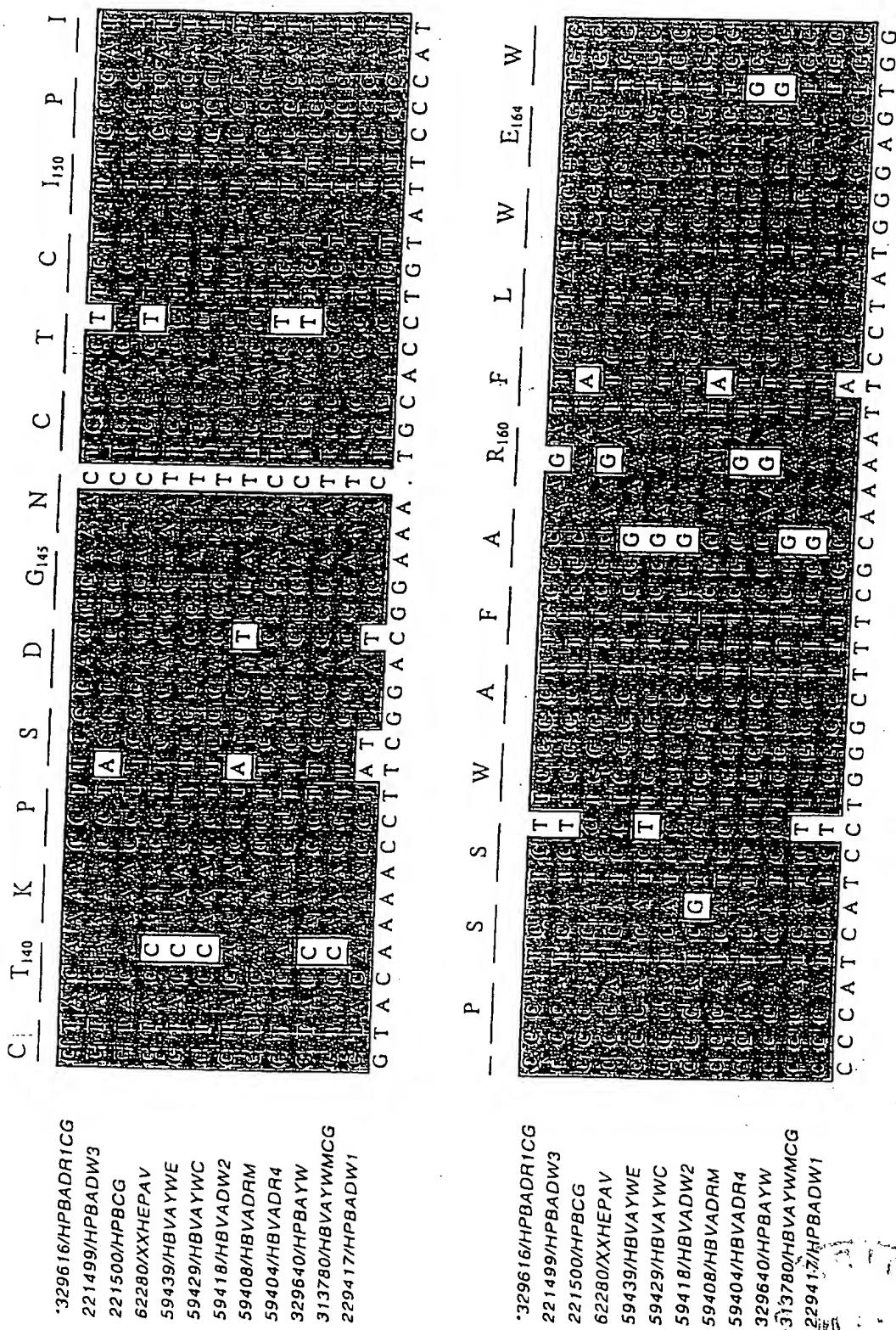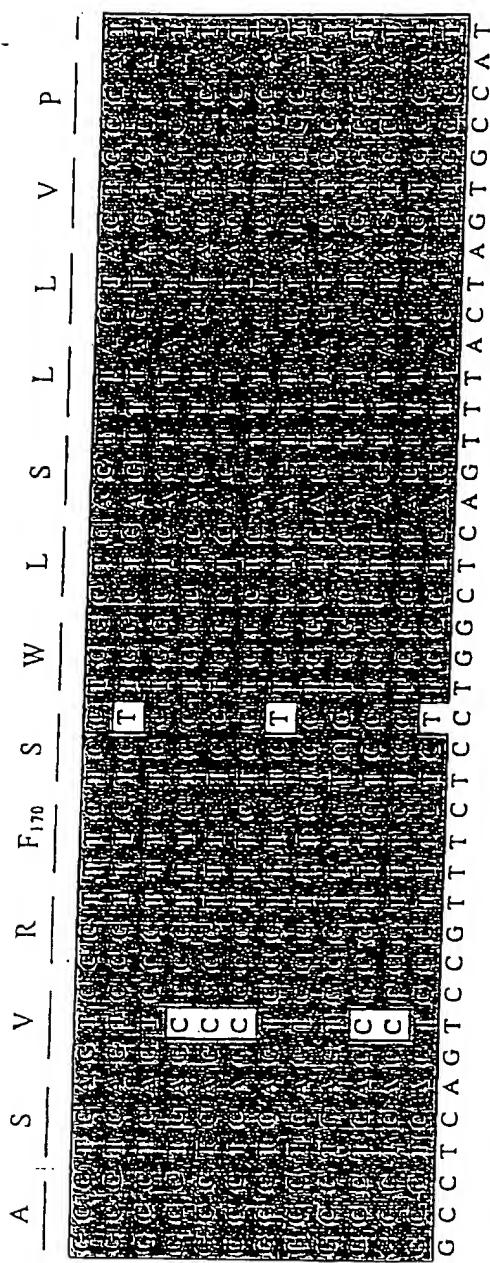
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221499/HPBADW3
221500/HPBCG
62280/XXHEPAV
59439/HBVAYWE
59429/HBVAYWC
59418/HBVADW2
59408/HBVADRM
59404/HBVADR4
329640/HPBAYW
313780/HBVAYWMCG
229417/HPBADW1

GTACAAAACCTTCGGGACGGAAA.TGCACCTGTATTCCCAT

P S S W A F A R₁₆₀ F L W E₁₆₄ W

'329616/HPBADR1CG
221499/HPBADW3
221500/HPBCG
62280/XXHEPAV
59439/HBVAYWE
59429/HBVAYWC
59418/HBVADW2
59408/HBVADRM
59404/HBVADR4
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229417/HPBADW1

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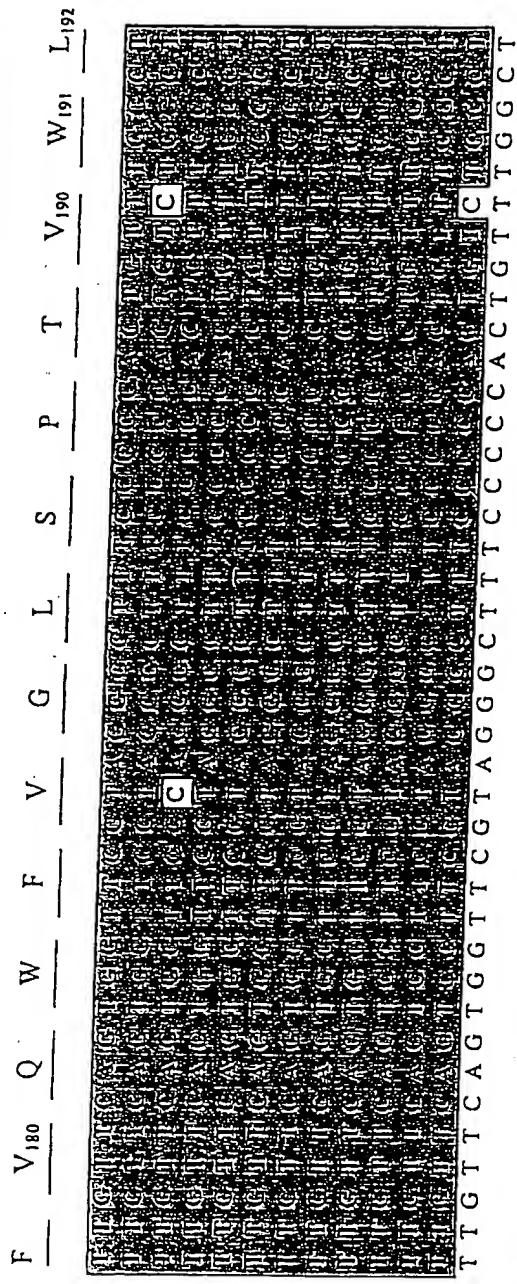
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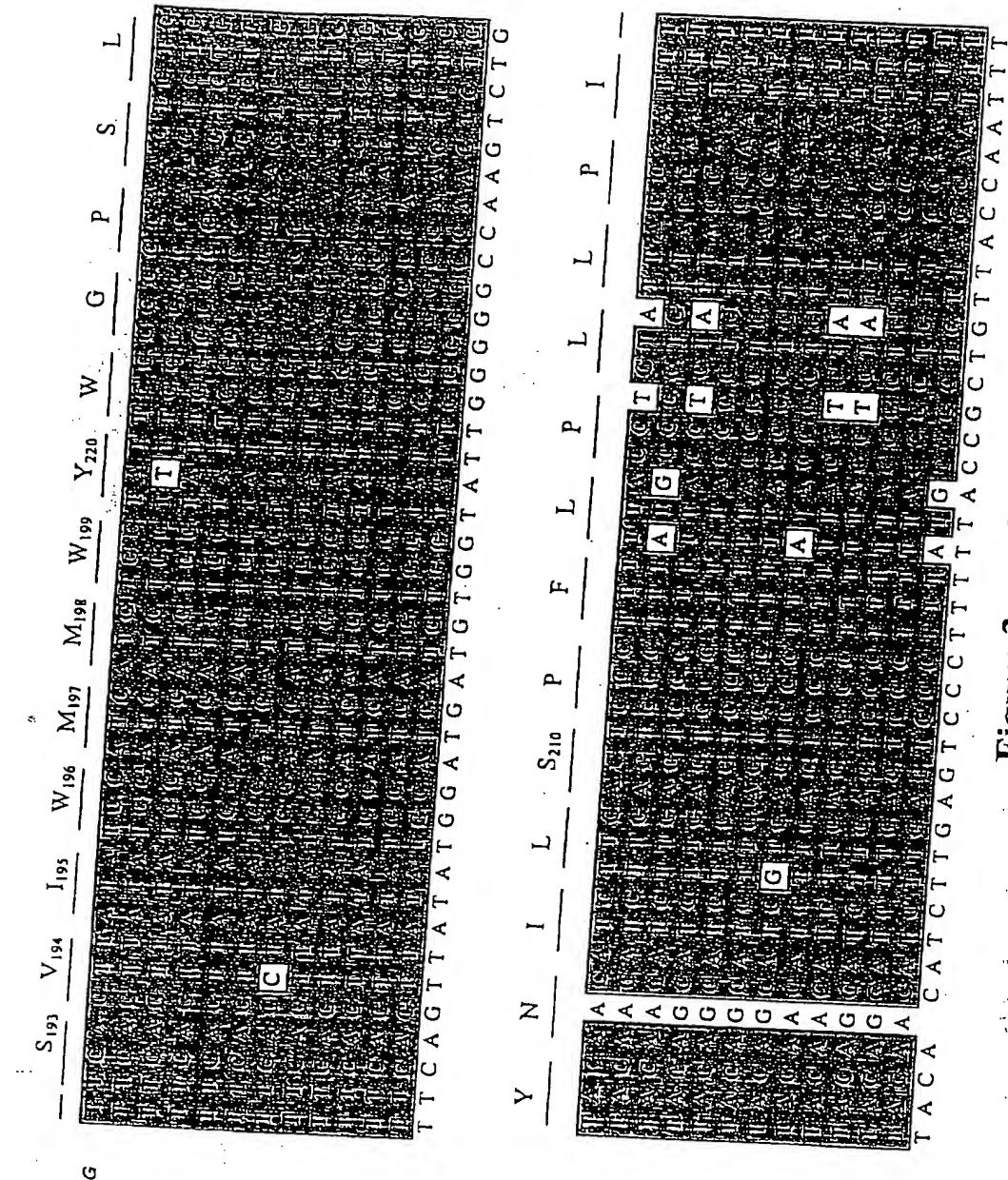
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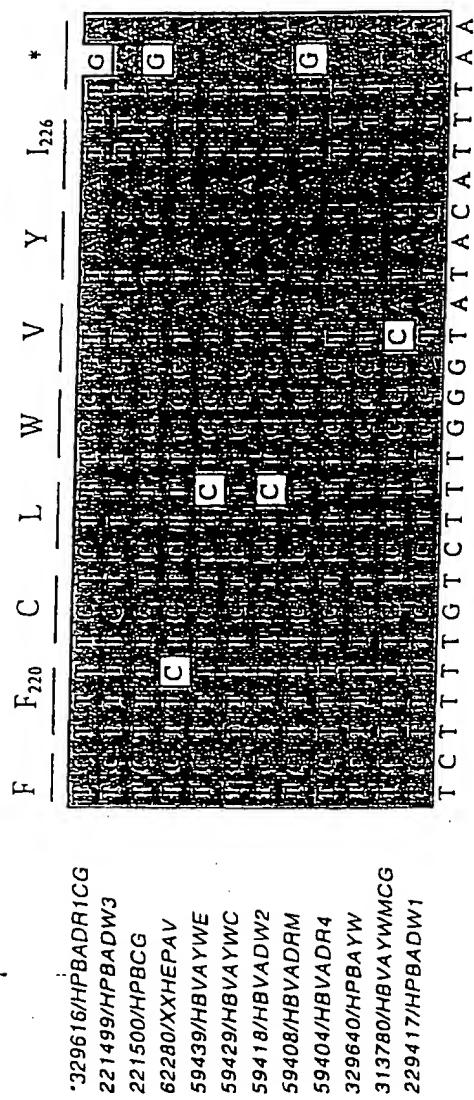
Figure 3 continued

Figure 3 continued

pBBHBV1.28

Figure 4A

pBBHBV1.5
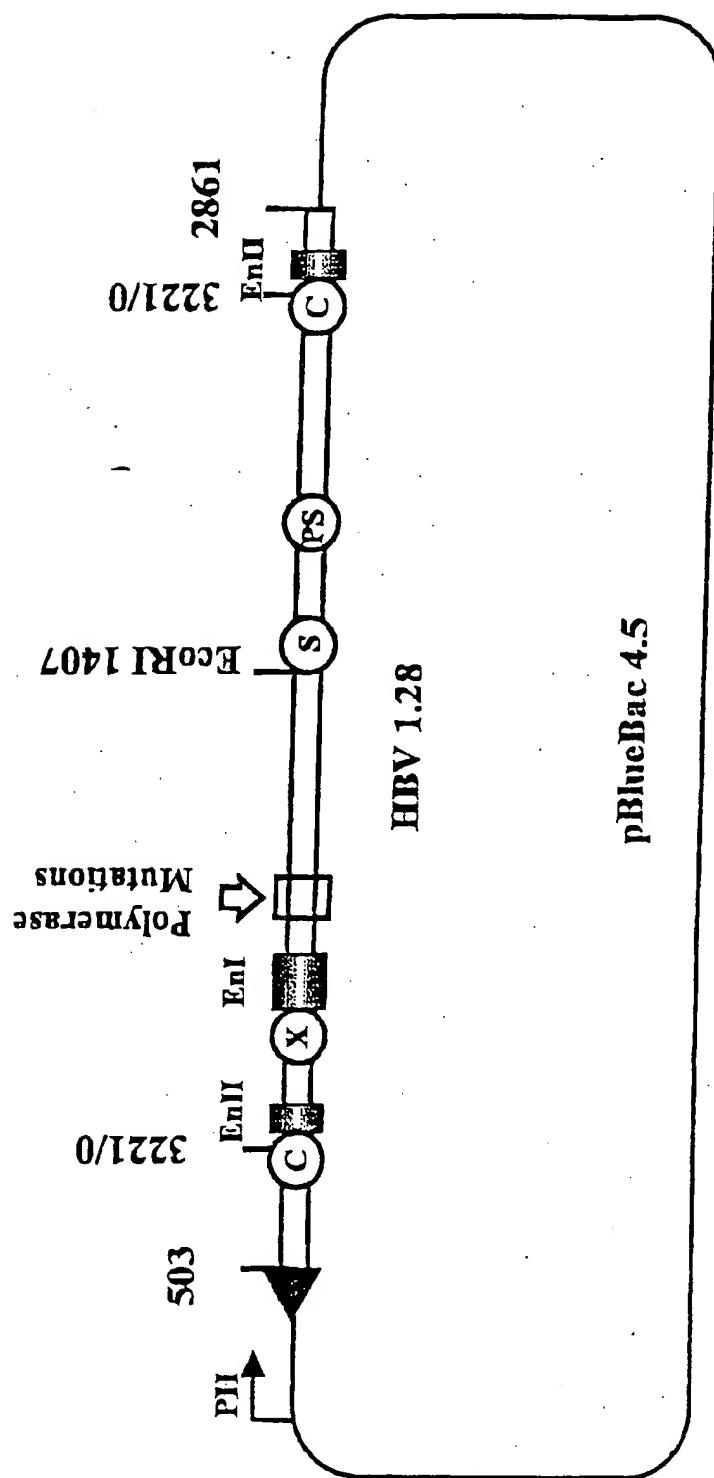
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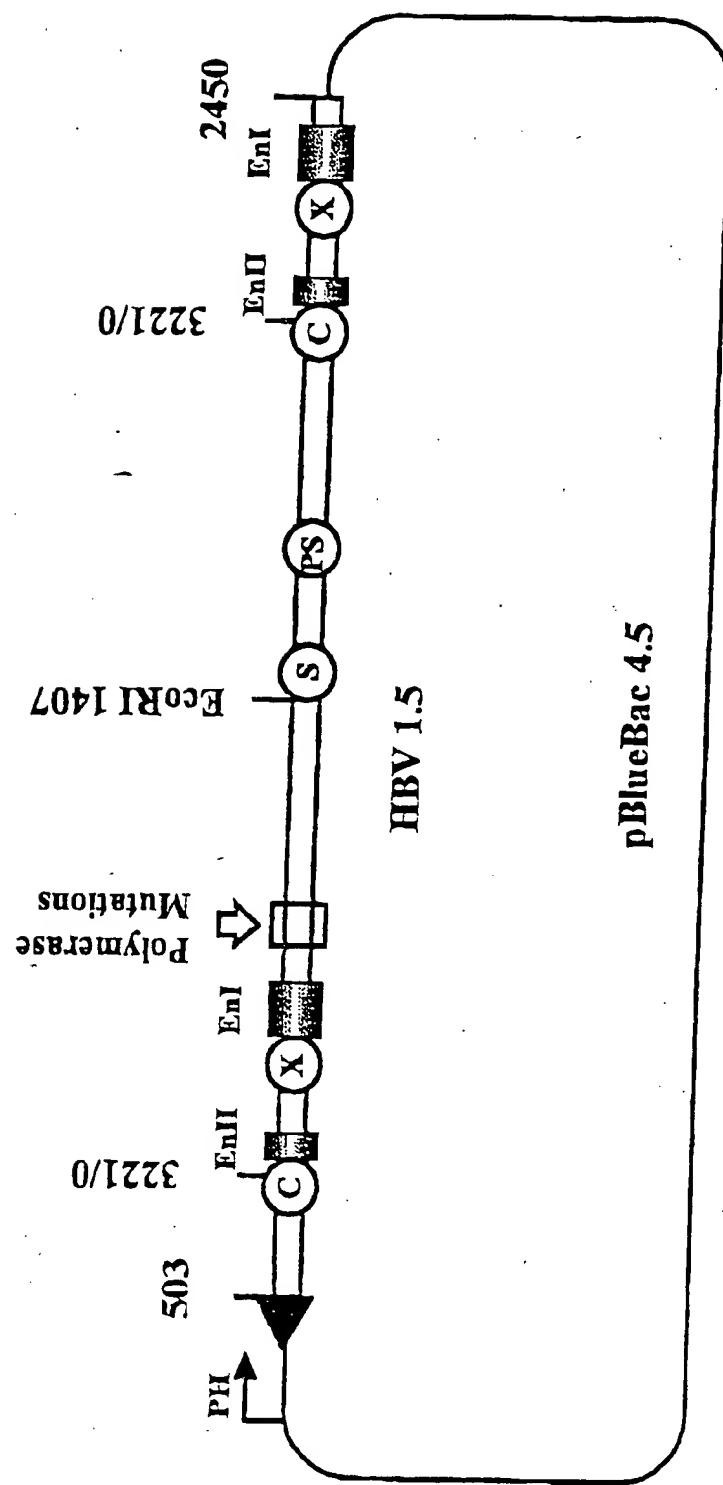
Sequence Range: 1 to 4084

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         10        20        30        40        50
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         60        70        80        90       100
    TGCCGTTCCAGCCGACCACGGGGCGCACCTCTCTTTACGCGGTCTCCCCG

        110       120       130       140       150
    TCTGTGCCTTCTCATCTGCCGGTCCGTGTGCACTTCGCTTCACCTCTGCA

         160       170       180       190       200
    CGTTGCATGGAGACCACCGTGAACGCCCATCAGATCCTGCCCAAGGTCTT

        210       220       230       240       250
    ACATAAGAGGACTCTTGGACTCCCAGCAATGTCAACGACCGACCTTGAGG

        260       270       280       290       300
    CCTACTTCAAAGACTGTGTGTTTAAGGACTGGGAGGAGCTGGGGGAGGAG

        310       320       330       340       350
    ATTAGGTTAAAGGTCTTTGTATTAGGAGGCTGTAGGCATAAATTGGTCTG

        360       370       380       390       400
    CGCACCAGCACCATGCAACTTTTTCACCTCTGCCTAATCATCTCTTGTAC

        410       420       430       440       450
    ATGTCCCACTGTTCAAGCCTCCAAGCTGTGCCTTGGGTGGCTTTGGGGCA

        460       470       480       490       500
    TGGACATTGACCCTTATAAAGAATTTGGAGCTACTGTGGAGTTACTCTCG

        510       520       530       540       550
    TTTTTGCCTTCTGACTTCTTTCCTTCCGTCAGAGATCTCCTAGACACCGC

        560       570       580       590       600
    CTCAGCTCTGTATCGAGAAGCCTTAGAGTCTCCTGAGCATTGCTCACCTC

        610       620       630       640       650
    ACCATACTGCACTCAGGCAAGCCATTCTCTGCTGGGGGGAATTGATGACT

        660       670       680       690      70.0
    CTAGCTACCTGGGTGGGTAATAATTTGGAAGATCCAGCATCCAGGGATCT
```

Figure 5A

```
       710       720       730       740       750
AGTAGTCAATTATGTTAATACTAACATGGGTTTAAAGATCAGGCAACTAT

       760       770       780       790       800
TGTGGTTTCATATATCTTGCCTTACTTTTGGAAGAGAGACTGTACTTGAA

       810       820       830       840       850
TATTTGGTCTCTTTCGGAGTGTGGATTCGCACTCCTCCAGCCTATAGACC

       860       870       880       890       900
ACCAAATGCCCCTATCTTATCAACACTTCCGGAAACTACTGTTGTTAGAC

        910       920       930       940       950
GACGGGACCGAGGCAGGTCCCCTAGAAGAAGAACTCCCTCGCCTCGCAGA

       960       970       980       990      1000
CGCAGATCTCAATCGCCGCGTCGCAGAAGATCTCAATCTCGGGAATCTCA

      1010      1020      1030      1040      1050
ATGTTAGTATTCCTTGGACTCATAAGGTGGGAAACTTTACGGGGCTTTAT

      1060      1070      1080      1090      1100
TCCTCTACAGTACCTATCTTTAATCCTGAATGGCAAACTCCTTCCTTTCC

      1110      1120      1130      1140      1150
TAAGATTCATTTACAAGAGGACATTATTAATAGGTGTCAACAATTTGTGG

      1160      1170      1180      1190      1200
GCCCTCTCACTGTAAATGAAAAGAGAAGATTGAAATTAATTATGCCTGCT

      1210      1220      1230      1240      1250
AGATTCTATCCTACCCACACTAAATATTTGCCCTTAGACAAAGGAATTAA

      1260      1270      1280      1290      1300
ACCTTATTATCCAGATCAGGTAGTTAATCATTACTTCCAAACCAGACATT

      1310      1320      1330      1340      1350
ATTTACATACTCTTTGGAAGGCTGGTATTCTATATAAGAGGGAAACCACA

      1360      1370      1380      1390      1400
CGTAGCGCATCATTTTGCGGGTCACCATATTCTTGGGAACAAGAGCTACA

      1410      1420      1430      1440      1450
GCATGGGAGGTTGGTCATCAAAACCTCGCAAAGGCATGGGGACGAATCTT
```

Figure 5A continued

```
        1460      1470      1480      1490      1500
TCTGTTCCCAACCCTCTGGGATTCTTTCCCGATCATCAGTTGGACCCTGC

        1510      1520      1530      1540      1550
ATTCGGAGCCAACTCAAACAATCCAGATTGGGACTTCAACCCCATCAAGG

        1560      1570      1580      1590      1600
ACCACTGGCCAGCAGCCAACCAGGTAGGAGTGGGAGCATTCGGGCCAGGG

        1610      1620      1630      1640      1650
CTCACCCCTCCACACGGCGGTATTTTGGGGTGGAGCCCTCAGGCTCAGGG

        1660      1670      1680      1690      1700
CATATTGACCACAGTGTCAACAATTCCTCCTCCTGCCTCCACCAATCGGC

        1710      1720      1730      1740      1750
AGTCAGGAAGGCAGCCTACTCCCATCTCTCCACCTCTAAGAGACAGTCAT

        1760      1770      1780      1790      1800
CCTCAGGCCATGCAGTGGAATTCCACTGCCTTCCACCAAGCTCTGCAGGA

        1810      1820      1830      1840      1850
TCCCAGAGTCAGGGGTCTGTATCTTCCTGCTGGTGGCTCCAGTTCAGGAA

        1860      1870      1880      1890      1900
CAGTAAACCCTGCTCCGAATATTGCCTCTCACATCTCGTCAATCTCCGCG

        1910      1920      1930      1940      1950
AGGACTGGGGACCCTGTGACGAACATGGAGAACATCACATCAGGATTCCT

        1960      1970      1980      1990      2000
AGGACCCCTGCTCGTGTTACAGGCGGGGTTTTTCTTGTTGACAAGAATCC

        2010      2020      2030      2040      2050
TCACAATACCGCAGAGTCTAGACTCGTGGTGGACTTCTCTCAATTTTCTA

        2060      2070      2080      2090      2100
GGGGGATCTCCCGTGTGTCTTGGCCAAAATTCGCAGTCCCCAACCTCCAA

        2110      2120      2130      2140      2150
TCACTCACCAACCTCCTGTCCTCCAATTTGTCCTGGTTATCGCTGGATGT

        2160      2170      2180      2190      2200
GTCTGCGGCGTTTTATCATATTCCTCTTCATCCTGCTGCTATGCCTCATC
```

Figure 5A continued

```
         2210      2220      2230      2240      2250
TTCTTATTGGTTCTTCTGGATTATCAAGGTATGTTGCCCGTTTGTCCTCT

         2260      2270      2280      2290      2300
AATTCCAGGATCAACAACAACCAGTACGGGACCATGCAAAACCTGCACGA

         2310      2320      2330      2340      2350
CTCCTGCTCAAGGCAACTCTATGTTTCCCTCATGTTGCTGTACAAAACCT

         2360      2370      2380      2390      2400
ACGGATGGAAATTGCACCTGTATTCCCATCCCATCGTCCTGGGCTTTCGC

         2410      2420      2430      2440      2450
AAAATACCTATGGGAGTGGGCCTCAGTCCGTTTCTCTTGGCTCAGTTTAC

         2460      2470      2480      2490      2500
TAGTGCCATTTGTTCAGTGGTTCGTAGGGCTTTCCCCCACTGTTTGGCTT

         2510      2520      2530      2540      2550
TCAGCTATATGGATGATGTGGTATTGGGGGCCAAGTCTGTACAGCATCGT

         2560      2570      2580      2590      2600
GAGTCCCTTTATACCGCTGTTACCAATTTTCTTTTGTCTCTGGGTATACA

         2610      2620      2630      2640      2650
TTTAAACCCTAACAAAACAAAAAGATGGGGTTATTCCCTAAACTTCATGG

         2660      2670      2680      2690      2700
GCTACATAATTGGAAGTTGGGGAACTTTGCCACAGGATCATATTGTACAA

         2710      2720      2730      2740      2750
AAGATCAAACACTGTTTTAGAAAACTTCCTGTTAACAGGCCTATTGATTG

        ·2760      2770      2780      2790      2800
GAAAGTATGTCAAAGAATTGTGGGTCTTTTGGGCTTTGCTGCTCCATTTA

         2810      2820      2830      2840      2850
CACAATGTGGATATCCTGCCTTAATGCCTTTGTATGCATGTATACAAGCT

         2860      2870      2880      2890      2900
AAACAGGCTTTCACTTTCTCGCCAACTTACAAGGCCTTTCTAAGTAAACA

         2910      2920      2930      2940      2950
GTACATGAACCTTTACCCCGTTGCTCGGCAACGGCCTGGTCTGTGCCAAG
```

Figure 5A continued

```
           2960      2970      2980      2990      3000
      TGTTTGCTGACGCAACCCCCACTGGCTGGGGCTTGGCCATAGGCCATCAG

               3010      3020      3030      3040      3050
      CGCATGCGTGGAACCTTTGTGGCTCCTCTGCCGATCCATACTGCGGAACT

               3060      3070      3080      3090      3100
      CCTAGCCGCTTGTTTTGCTCGCAGCCGGTCTGGAGCAAAGCTCATCGGAA

               3110      3120      3130      3140      3150
      CTGACAATTCTGTCGTCCTCTCGCGGAAATATACATCGTTTCCATGGCTG

               3160      3170      3180      3190      3200
      CTAGGCTGTACTGCCAACTGGATCCTTCGCGGGACGTCCTTTGTTTACGT

               3210      3220      3230      3240      3250
      CCCGTCGGCGCTGAATCCCGCGGACGACCCCTCGCGGGGCCGCTTGGGAC

               3260      3270      3280      3290      3300
      TCTCTCGTCCCCTTCTCCGTCTGCCGTTCCAGCCGACCACGGGGCGCACC

               3310      3320      3330      3340      3350
      TCTCTTTACGCGGTCTCCCCGTCTGTGCCTTCTCATCTGCCGGTCCGTGT

               3360      3370      3380      3390      3400
      GCACTTCGCTTCACCTCTGCACGTTGCATGGAGACCACCGTGAACGCCCA

               3410      3420      3430      3440      3450
      TCAGATCCTGCCCAAGGTCTTACATAAGAGGACTCTTGGACTCCCAGCAA

               3460      3470      3480      3490      3500
      TGTCAACGACCGACCTTGAGGCCTACTTCAAAGACTGTGTGTTTAAGGAC

               3510      3520      3530      3540      3550
      TGGGAGGAGCTGGGGGAGGAGATTAGGTTAAAGGTCTTTGTATTAGGAGG

               3560      3570      3580      3590      3600
      CTGTAGGCATAAATTGGTCTGCGCACCAGCACCATGCAACTTTTTCACCT

                3610      3620      3630      3640      3650
      CTGCCTAATCATCTCTTGTACATGTCCCACTGTTCAAGCCTCCAAGCTGT

               3660      3670      3680      3690      3700
      GCCTTGGGTGGCTTTGGGGCATGGACATTGACCCTTATAAAGAATTTGGA
```

Figure 5A continued

```
            3710      3720      3730      3740      3750
GCTACTGTGGAGTTACTCTCGTTTTTGCCTTCTGACTTCTTTCCTTCCGT

            3760      3770      3780      3790      3800
CAGAGATCTCCTAGACACCGCCTCAGCTCTGTATCGAGAAGCCTTAGAGT

            3810      3820      3830      3840      3850
CTCCTGAGCATTGCTCACCTCACCATACTGCACTCAGGCAAGCCATTCTC

            3860      3870      3880      3890      3900
TGCTGGGGGGAATTGATGACTCTAGCTACCTGGGTGGGTAATAATTTGGA

            3910    ` 3920      3930      3940      3950
AGATCCAGCATCCAGGGATCTAGTAGTCAATTATGTTAATACTAACATGG

            3960      3970      3980      3990      4000
GTTTAAAGATCAGGCAACTATTGTGGTTTCATATATCTTGCCTTACTTTT

            4010      4020      4030      4040      4050
GGAAGAGAGACTGTACTTGAATATTTGGTCTCTTTCGGAGTGTGGATTCG

            4060      4070      4080
CACTCCTCCAGCCTATAGACCACCAAATGCCCCT
```

Figure 5A continued

Sequence Range: 1 to 4496

```
           10          20          30          40          50
GATATCCTGCCTTAATGCCTTTGTATGCATGTATACAAGCTAAACAGGCT

           60          70          80          90         100
TTCACTTTCTCGCCAACTTACAAGGCCTTTCTAAGTAAACAGTACATGAA

          110         120         130         140         150
CCTTTACCCCGTTGCTCGGCAACGGCCTGGTCTGTGCCAAGTGTTTGCTG

          160         170         180         190         200
ACGCAACCCCCACTGGCTGGGGCTTGGCCATAGGCCATCAGCGCATGCGT

          210         220         230         240         250
GGAACCTTTGTGGCTCCTCTGCCGATCCATACTGCGGAACTCCTAGCCGC

          260         270         280         290         300
TTGTTTTGCTCGCAGCCGGTCTGGAGCAAAGCTCATCGGAACTGACAATT

          310         320         330         340         350
CTGTCGTCCTCTCGCGGAAATATACATCGTTTCCATGGCTGCTAGGCTGT

          360         370         380         390         400
ACTGCCAACTGGATCCTTCGCGGGACGTCCTTTGTTTACGTCCCGTCGGC

          410         420         430         440         450
GCTGAATCCCGCGGACGACCCCTCGCGGGGCCGCTTGGGACTCTCTCGTC

          460         470         480         490         500
CCCTTCTCCGTCTGCCGTTCCAGCCGACCACGGGGCGCACCTCTCTTTAC

          510         520         530         540         550
GCGGTCTCCCCGTCTGTGCCTTCTCATCTGCCGGTCCGTGTGCACTTCGC

          560         570         580         590         600
TTCACCTCTGCACGTTGCATGGAGACCACCGTGAACGCCCATCAGATCCT

          610         620         630         640         650
GCCCAAGGTCTTACATAAGAGGACTCTTGGACTCCCAGCAATGTCAACGA

          660         670         680         690         700
CCGACCTTGAGGCCTACTTCAAAGACTGTGTGTTTAAGGACTGGGAGGAG
```

Figure 5B

```
          710       720       730       740        750
CTGGGGGAGGAGATTAGGTTAAAGGTCTTTGTATTAGGAGGCTGTAGGCA

          760       770       780       790       800
TAAATTGGTCTGCGCACCAGCACCATGCAACTTTTTCACCTCTGCCTAAT

          810       820       830       840       850
CATCTCTTGTACATGTCCCACTGTTCAAGCCTCCAAGCTGTGCCTTGGGT

          860       870       880       890       900
GGCTTTGGGGCATGGACATTGACCCTTATAAAGAATTTGGAGCTACTGTG

          910       920       930       940       950
GAGTTACTCTCGTTTTTGCCTTCTGACTTCTTTCCTTCCGTCAGAGATCT

          960       970       980       990       1000
CCTAGACACCGCCTCAGCTCTGTATCGAGAAGCCTTAGAGTCTCCTGAGC

         1010      1020      1030      1040      1050
ATTGCTCACCTCACCATACTGCACTCAGGCAAGCCATTCTCTGCTGGGGG

         1060      1070      1080      1090      1100
GAATTGATGACTCTAGCTACCTGGGTGGGTAATAATTTGGAAGATCCAGC

         1110      1120      1130      1140      1150
ATCCAGGGATCTAGTAGTCAATTATGTTAATACTAACATGGGTTTAAAGA

         1160      1170      1180      1190      1200
TCAGGCAACTATTGTGGTTTCATATATCTTGCCTTACTTTTGGAAGAGAG

         1210      1220      1230      1240      1250
ACTGTACTTGAATATTTGGTCTCTTTCGGAGTGTGGATTCGCACTCCTCC

         1260      1270      1280      1290      1300
AGCCTATAGACCACCAAATGCCCCTATCTTATCAACACTTCCGGAAACTA

         1310      1320      1330      1340      1350
CTGTTGTTAGACGACGGGACCGAGGCAGGTCCCCTAGAAGAAGAACTCCC

         1360      1370      1380      1390      1400
TCGCCTCGCAGACGCAGATCTCAATCGCCGCGTCGCAGAAGATCTCAATC

         1410      1420      1430      1440      1450
TCGGGAATCTCAATGTTAGTATTCCTTGGACTCATAAGGTGGGAAACTTT
```

Figure 5B continued

```
         1460       1470       1480       1490       1500
ACGGGGCTTTATTCCTCTACAGTACCTATCTTTAATCCTGAATGGCAAAC.

         1510       1520       1530       1540       1550
TCCTTCCTTTCCTAAGATTCATTTACAAGAGGACATTATTAATAGGTGTC

         1560       1570       1580       1590       1600
AACAATTTGTGGGCCCTCTCACTGTAAATGAAAAGAGAAGATTGAAATTA

         1610       1620       1630       1640       1650
ATTATGCCTGCTAGATTCTATCCTACCCACACTAAATATTTGCCCTTAGA
   —
         1660       1670       1680       1690       1700
CAAAGGAATTAAACCTTATTATCCAGATCAGGTAGTTAATCATTACTTCC

         1710       1720       1730       1740       1750
AAACCAGACATTATTTACATACTCTTTGGAAGGCTGGTATTCTATATAAG

         1760       1770       1780       1790       1800·
AGGGAAACCACACGTAGCGCATCATTTTGCGGGTCACCATATTCTTGGGA

         1810       1820       1830       1840       1850
ACAAGAGCTACAGCATGGGAGGTTGGTCATCAAAACCTCGCAAAGGCATG

         1860       1870       1880       1890       1900
GGGACGAATCTTTCTGTTCCCAACCCTCTGGGATTCTTTCCCGATCATCA

         1910       1920       1930 ·     1940       1950
GTTGGACCCTGCATTCGGAGCCAACTCAAACAATCCAGATTGGGACTTCA

         1960       1970       1980       1990       2000
ACCCCATCAAGGACCACTGGCCAGCAGCCAACCAGGTAGGAGTGGGAGCA

         2010       2020       2030       2040       2050
TTCGGGCCAGGGCTCACCCCTCCACACGGCGGTATTTTGGGGTGGAGCCC

        ·2060       2070       2080       2090.      2100
TCAGGCTCAGGGCATATTGACCACAGTGTCAACAATTCCTCCTCCTGCCT

         2110       2120       2130       2140       2150
CCACCAATCGGCAGTCAGGAAGGCAGCCTACTCCCATCTCTCCACCTCTA

         2160       2170       2180       2190       2200
AGAGACAGTCATCCTCAGGCCATGCAGTGGAATTCCACTGCCTTCCACCA
```

Figure 5B continued

```
            2210      2220      2230      2240      2250
AGCTCTGCAGGATCCCAGAGTCAGGGGTCTGTATCTTCCTGCTGGTGGCT

            2260      2270      2280      2290      2300
CCAGTTCAGGAACAGTAAACCCTGCTCCGAATATTGCCTCTCACATCTCG

            2310      2320      2330      2340      2350
TCAATCTCCGCGAGGACTGGGGACCCTGTGACGAACATGGAGAACATCAC

            2360      2370      2380      2390      2400
ATCAGGATTCCTAGGACCCCTGCTCGTGTTACAGGCGGGGTTTTTCTTGT

            2410      2420      2430      2440      2450
TGACAAGAATCCTCACAATACCGCAGAGTCTAGACTCGTGGTGGACTTCT

            2460      2470      2480      2490      2500
CTCAATTTTCTAGGGGGATCTCCCGTGTGTCTTGGCCAAAATTCGCAGTC

            2510      2520      2530      2540      2550
CCCAACCTCCAATCACTCACCAACCTCCTGTCCTCCAATTTGTCCTGGTT

            2560      2570      2580      2590      2600
ATCGCTGGATGTGTCTGCGGCGTTTTATCATATTCCTCTTCATCCTGCTG

            2610      2620      2630      2640      2650
CTATGCCTCATCTTCTTATTGGTTCTTCTGGATTATCAAGGTATGTTGCC

            2660      2670      2680      2690      2700
CGTTTGTCCTCTAATTCCAGGATCAACAACAACCAGTACGGGACCATGCA

            2710      2720      2730      2740      2750
AAACCTGCACGACTCCTGCTCAAGGCAACTCTATGTTTCCCTCATGTTGC

            2760      2770      2780      2790      2800
TGTACAAAACCTACGGATGGAAATTGCACCTGTATTCCCATCCCATCGTC

            2810      2820      2830      2840      2850
CTGGGCTTTCGCAAAATACCTATGGGAGTGGGCCTCAGTCCGTTTCTCTT

            2860      2870      2880      2890      2900
GGCTCAGTTTACTAGTGCCATTTGTTCAGTGGTTCGTAGGGCTTTCCCCC

            2910      2920      2930      2940      2950
ACTGTTTGGCTTTCAGCTATATGGATGATGTGGTATTGGGGGCCAAGTCT
```

Figure 5B continued

```
        2960      2970      2980      2990      3000
GTACAGCATCGTGAGTCCCTTTATACCGCTGTTACCAATTTTCTTTTGTC

        3010      3020      3030      3040      3050
TCTGGGTATACATTTAAACCCTAACAAAACAAAAAGATGGGGTTATTCCC

        3060      3070      3080      3090      3100
TAAACTTCATGGGCTACATAATTGGAAGTTGGGGAACTTTGCCACAGGAT

        3110      3120      3130      3140      3150
CATATTGTACAAAAGATCAAACACTGTTTTAGAAAACTTCCTGTTAACAG

        3160      3170      3180      3190      3200
GCCTATTGATTGGAAAGTATGTCAAAGAATTGTGGGTCTTTTGGGCTTTG

        3210      3220      3230      3240      3250
CTGCTCCATTTACACAATGTGGATATCCTGCCTTAATGCCTTTGTATGCA

        3260      3270      3280      3290      3300
TGTATACAAGCTAAACAGGCTTTCACTTTCTCGCCAACTTACAAGGCCTT

        3310      3320      3330      3340      3350
TCTAAGTAAACAGTACATGAACCTTTACCCCGTTGCTCGGCAACGGCCTG

        3360      3370      3380      3390      3400
GTCTGTGCCAAGTGTTTGCTGACGCAACCCCCACTGGCTGGGGCTTGGCC

        3410      3420      3430      3440      3450
ATAGGCCATCAGCGCATGCGTGGAACCTTTGTGGCTCCTCTGCCGATCCA

        3460      3470      3480      3490      3500
TACTGCGGAACTCCTAGCCGCTTGTTTTGCTCGCAGCCGGTCTGGAGCAA

        3510      3520      3530      3540      3550
AGCTCATCGGAACTGACAATTCTGTCGTCCTCTCGCGGAAATATACATCG

        3560      3570      3580      3590      3600
TTTCCATGGCTGCTAGGCTGTACTGCCAACTGGATCCTTCGCGGGACGTC

        3610      3620      3630      3640      3650
CTTTGTTTACGTCCCGTCGGCGCTGAATCCCGCGGACGACCCCTCGCGGG

        3660      3670      3680      3690      3700
GCCGCTTGGGACTCTCTCGTCCCCTTCTCCGTCTGCCGTTCCAGCCGACC
```

Figure 5B continued

```
         3710      3720      3730      3740      3750
ACGGGGCGCACCTCTCTTTACGCGGTCTCCCCGTCTGTGCCTTCTCATCT

         3760      3770      3780      3790      3800
GCCGGTCCGTGTGCACTTCGCTTCACCTCTGCACGTTGCATGGAGACCAC

         3810      3820      3830      3840      3850
CGTGAACGCCCATCAGATCCTGCCCAAGGTCTTACATAAGAGGACTCTTG

         3860      3870      3880      3890      3900
GACTCCCAGCAATGTCAACGACCGACCTTGAGGCCTACTTCAAAGACTGT

         3910      3920      3930      3940      3950
GTGTTTAAGGACTGGGAGGAGCTGGGGGAGGAGATTAGGTTAAAGGTCTT

         3960      3970      3980      3990      4000
TGTATTAGGAGGCTGTAGGCATAAATTGGTCTGCGCACCAGCACCATGCA

         4010      4020      4030      4040      4050
ACTTTTTCACCTCTGCCTAATCATCTCTTGTACATGTCCCACTGTTCAAG

         4060      4070      4080      4090      4100
CCTCCAAGCTGTGCCTTGGGTGGCTTTGGGGCATGGACATTGACCCTTAT

         4110      4120      4130      4140      4150
AAAGAATTTGGAGCTACTGTGGAGTTACTCTCGTTTTTGCCTTCTGACTT

         4160      4170      4180      4190      4200
CTTTCCTTCCGTCAGAGATCTCCTAGACACCGCCTCAGCTCTGTATCGAG

         4210      4220      4230      4240      4250
AAGCCTTAGAGTCTCCTGAGCATTGCTCACCTCACCATACTGCACTCAGG

         4260      4270      4280      4290      4300
CAAGCCATTCTCTGCTGGGGGGAATTGATGACTCTAGCTACCTGGGTGGG

         4310      4320      4330      4340      4350
TAATAATTTGGAAGATCCAGCATCCAGGGATCTAGTAGTCAATTATGTTA

         4360      4370      4380      4390      4400
ATACTAACATGGGTTTAAAGATCAGGCAACTATTGTGGTTTCATATATCT

         4410      4420      4430      4440      4450
TGCCTTACTTTTGGAAGAGAGACTGTACTTGAATATTTGGTCTCTTTCGG

         4460      4470      4480      4490
AGTGTGGATTCGCACTCCTCCAGCCTATAGACCACCAAATGCCCCT
```

Figure 5B continued

Rank 2 Eqn 8076 [LgstcDoseRsp_] y=a/(1+(x/b)^c)
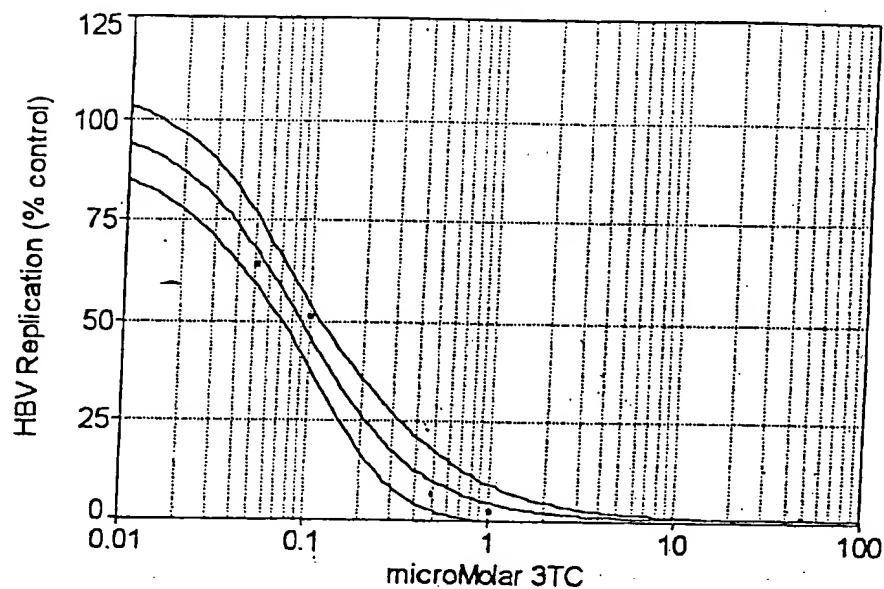
Figure 6A

Rank 2 Eqn 8076 [LgstcDoseRsp_] y=a/(1+(x/b)^c)

Figure 6B

Wild-type

PCV [ ] μM   0   1.0   10.0   50   100   500

RC ‑
DS ‑
SS ‑
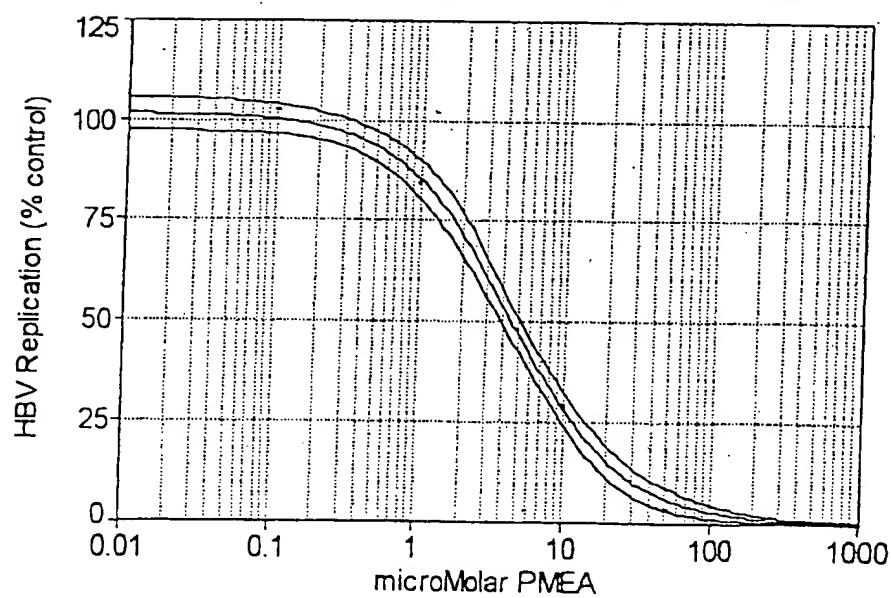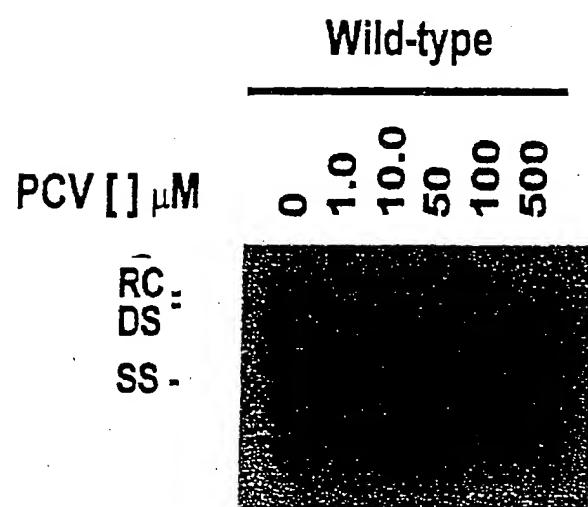
Figure 6C

Rank 2 Eqn 8076 [LgstcDoseRsp_] y=a/(1+(x/b)^c)
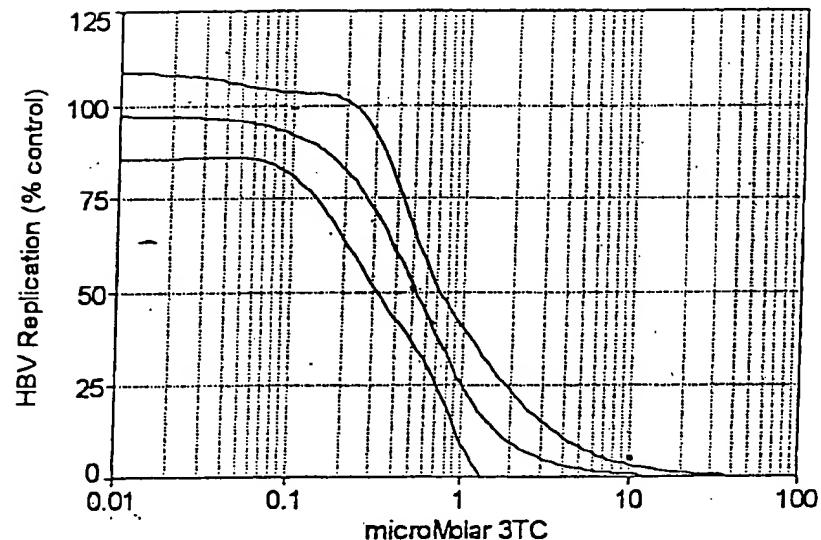
Figure 7A

Rank 2 Eqn 8076 [LgstcDoseRsp_] y=a/(1+(x/b)^c)
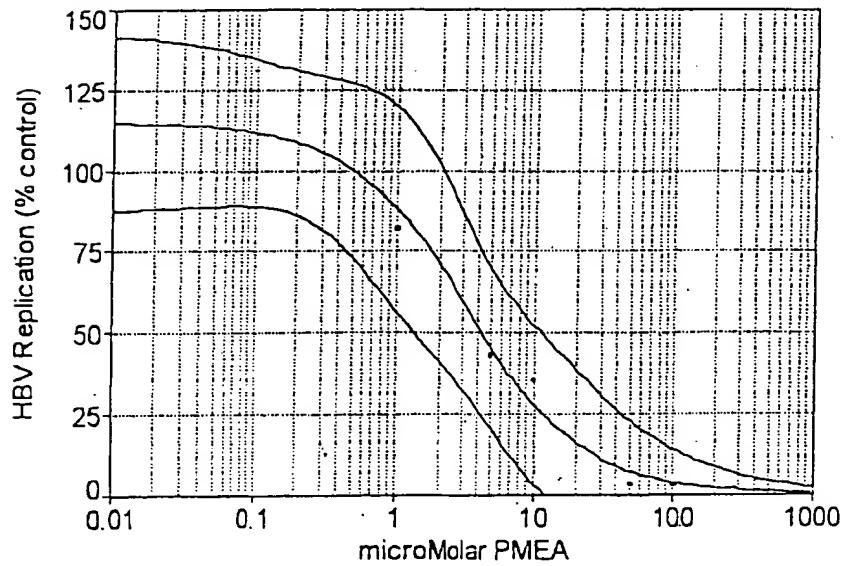
Figure 7B

Rank 45 Eqn 19 $y=a+b\ln x/x^2$
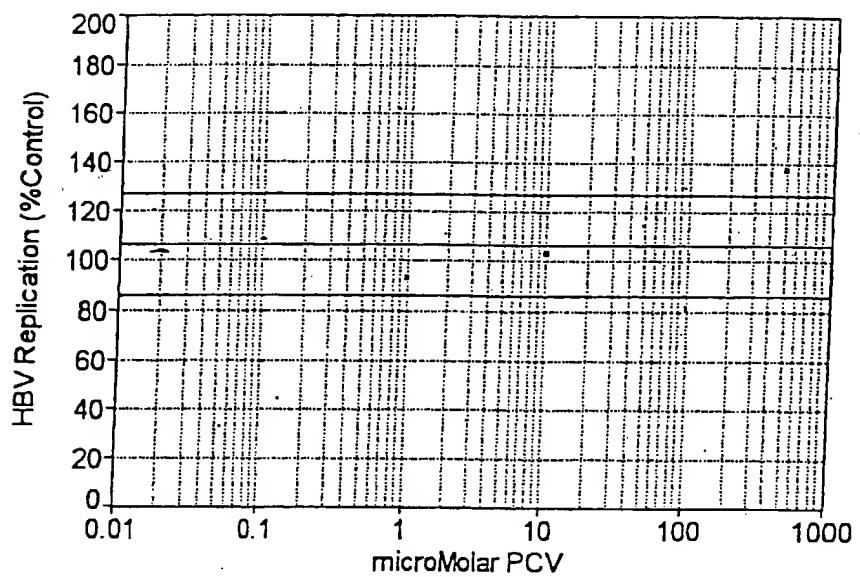
Figure 7C

Rank 8 Eqn 10 y=a+b(lnx)^2
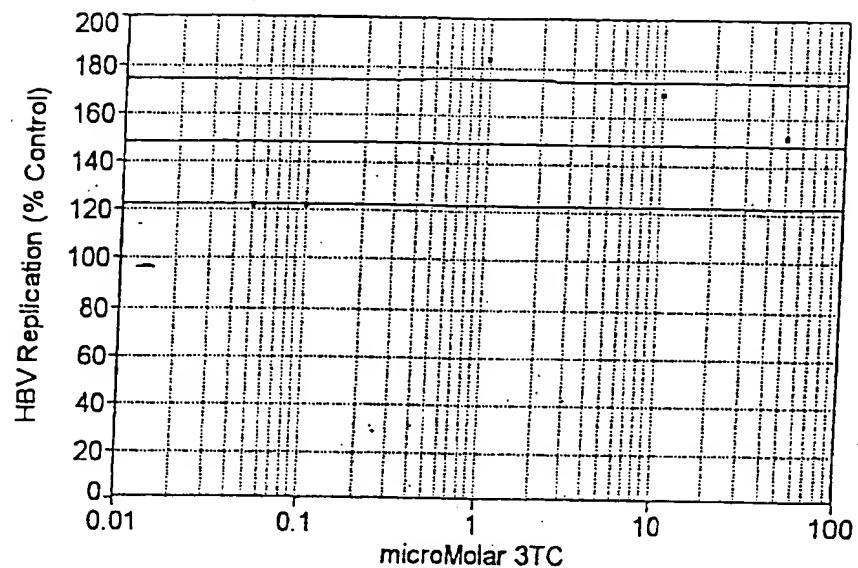
Figure 8A

Rank 2 Eqn 8076 [LgstcDoseRsp_] y=a/(1+(x/b)^c)
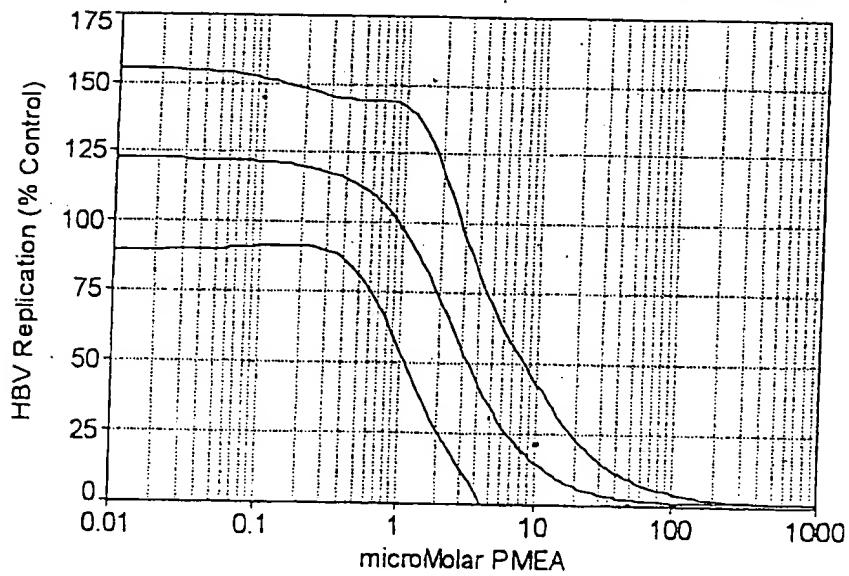
Figure 8B

Rank 34 Eqn 10 y=a+b(lnx)^2
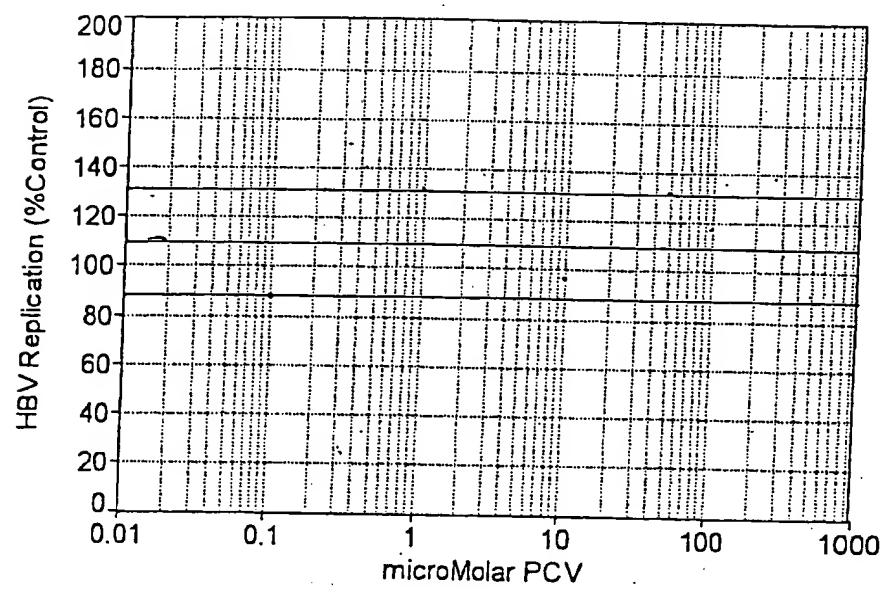
Figure 8C

Rank 45 Eqn 10 y=a+b(lnx)^2
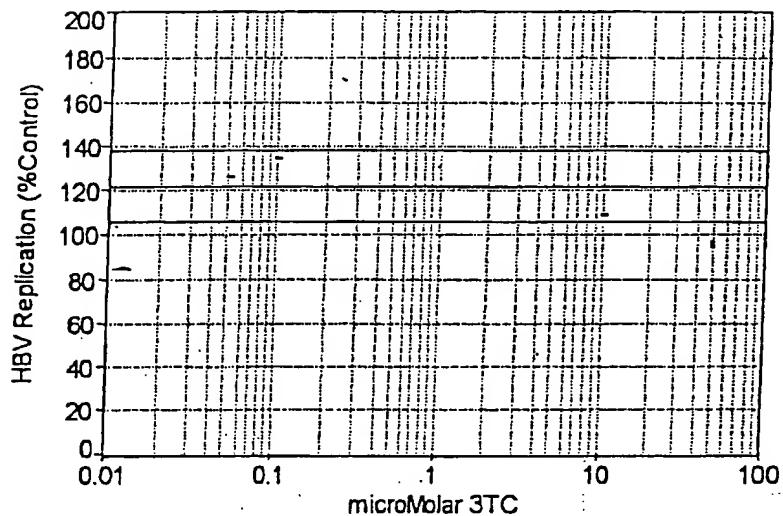
Figure 9A

Rank 2 Eqn 8076 [LgstcDoseRsp_] y=a/(1+(x/b)^c)
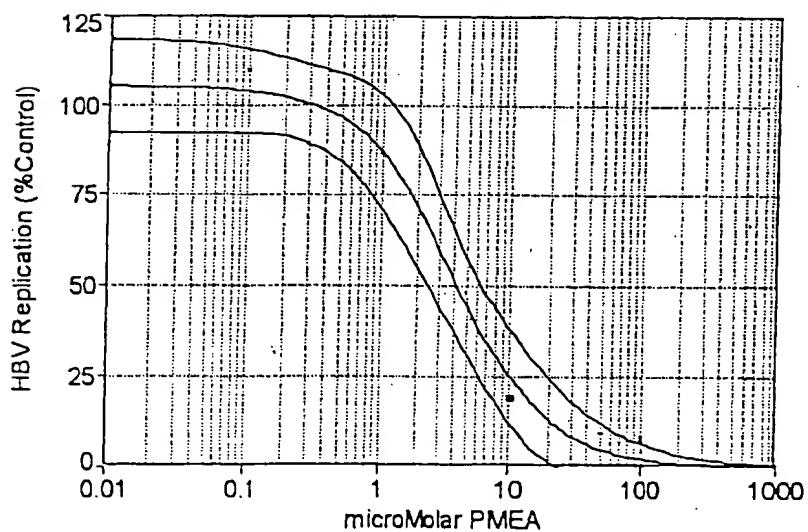
Figure 9B

Rank 20 Eqn 10 $y=a+b(\ln x)^2$
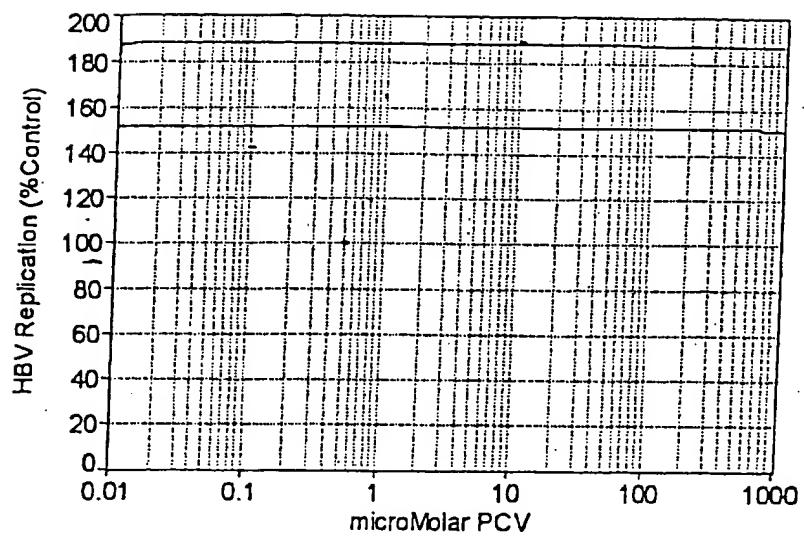
Figure 9C

Cold dCTP Competition

Rank 2 Eqn 8076 [LgstcDoseRsp_] y=a/(1+(x/b)^c)

Figure 10

Pre-Core

RC
DS
SS

WT

RC
DS
SS

Adefovir 0 0.05 0.1 1 10 100
(µM) 0.01

Figure 11A

Figure 11B

Pre- Core

WT

Famciclovir (μM)

Figure 11C

lane	IC DNA						S	EC DNA					
	1	2	3	4	5	6		7	8	9	10	11	12

RC /
DS —
SS —

S — Standard
Lane 1 & 7 — Wild type (HBV x 1.3)
Lane 2 & 8 — pre-core
Lane 3 & 9 — M550I
Lane 4 & 11 — L526M/M550V
Lane 5 & 10 — pre-core/M550I
Lane 6 & 12 — pre-core/L526M/M550V
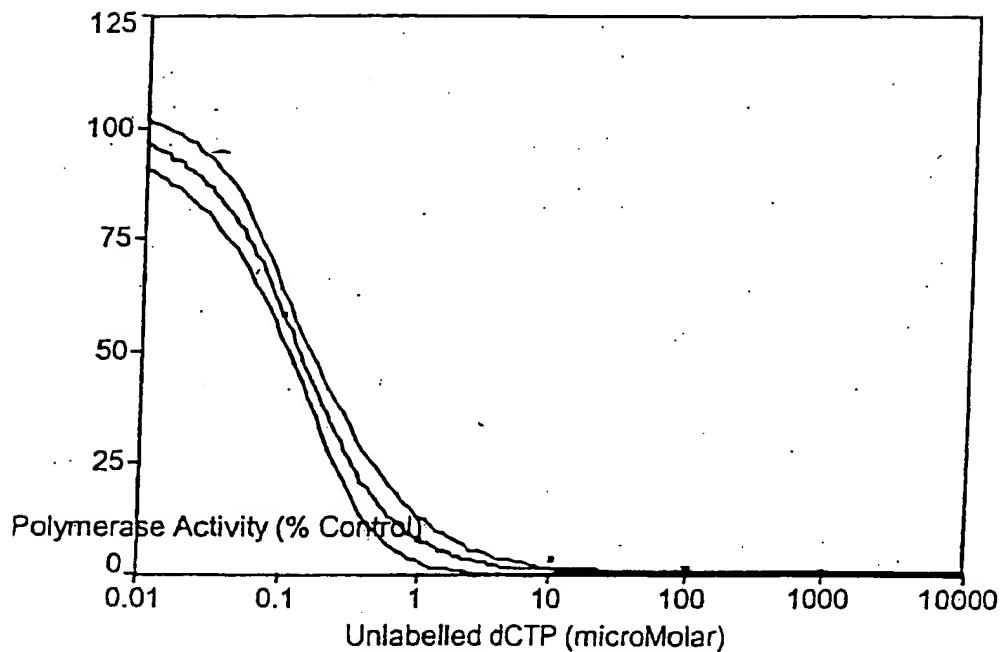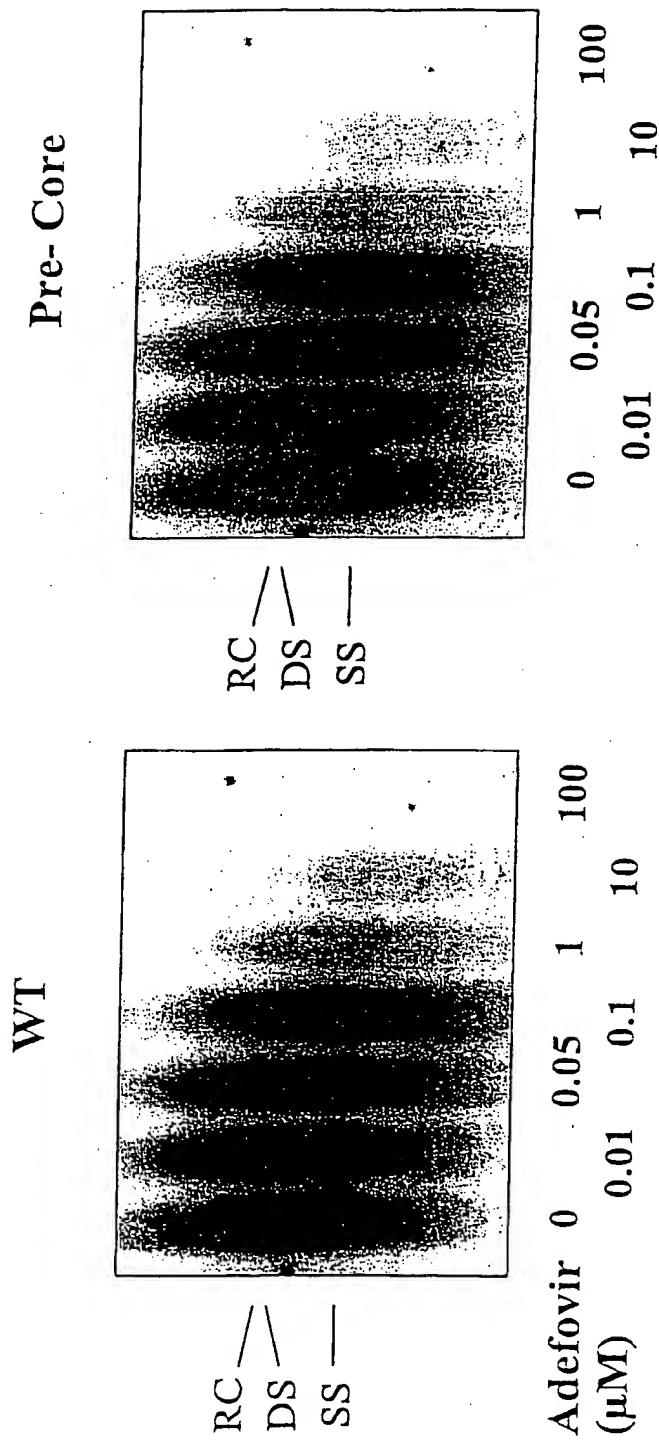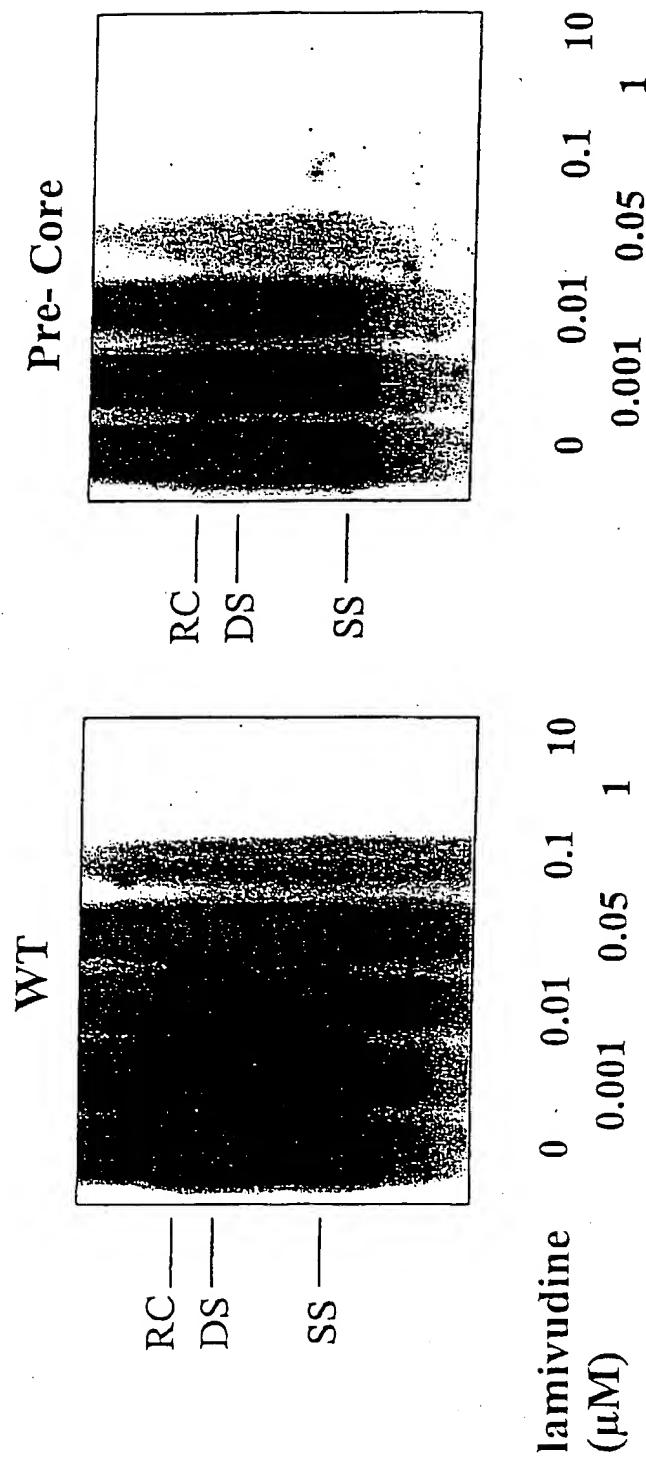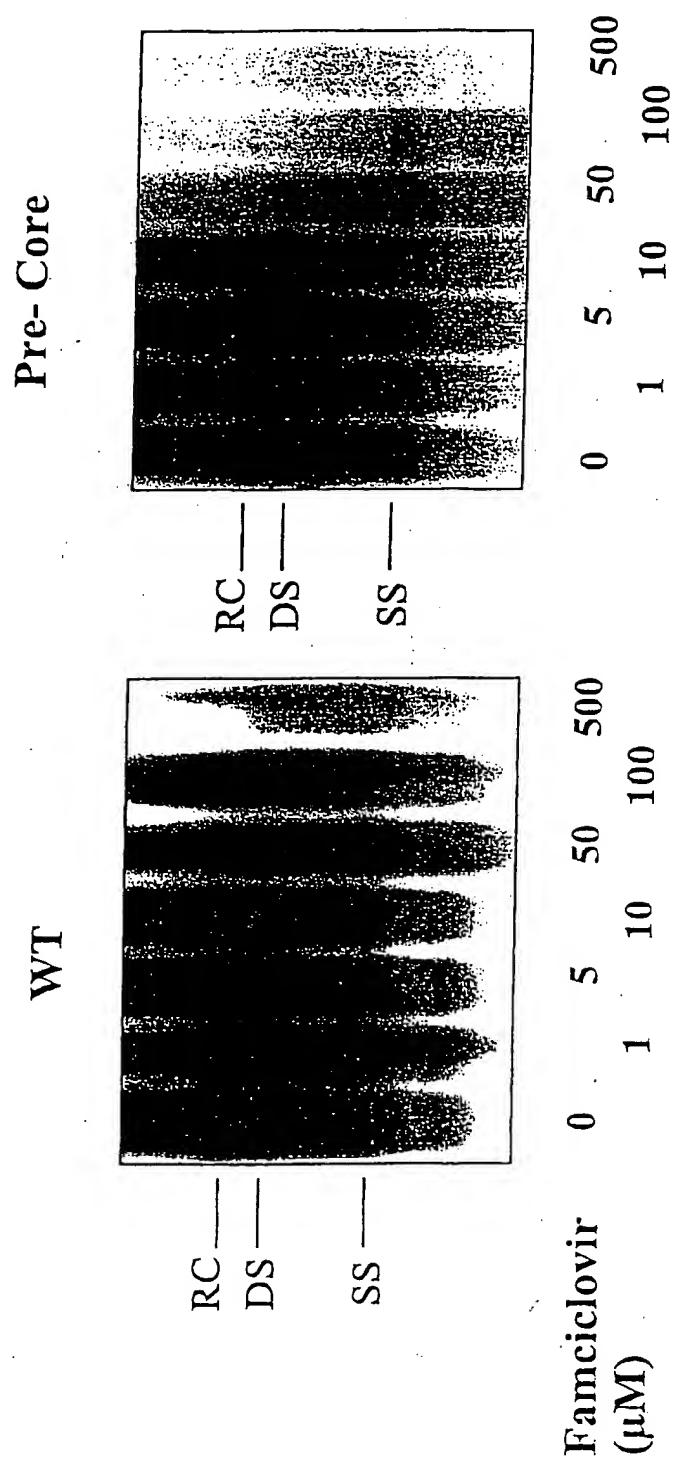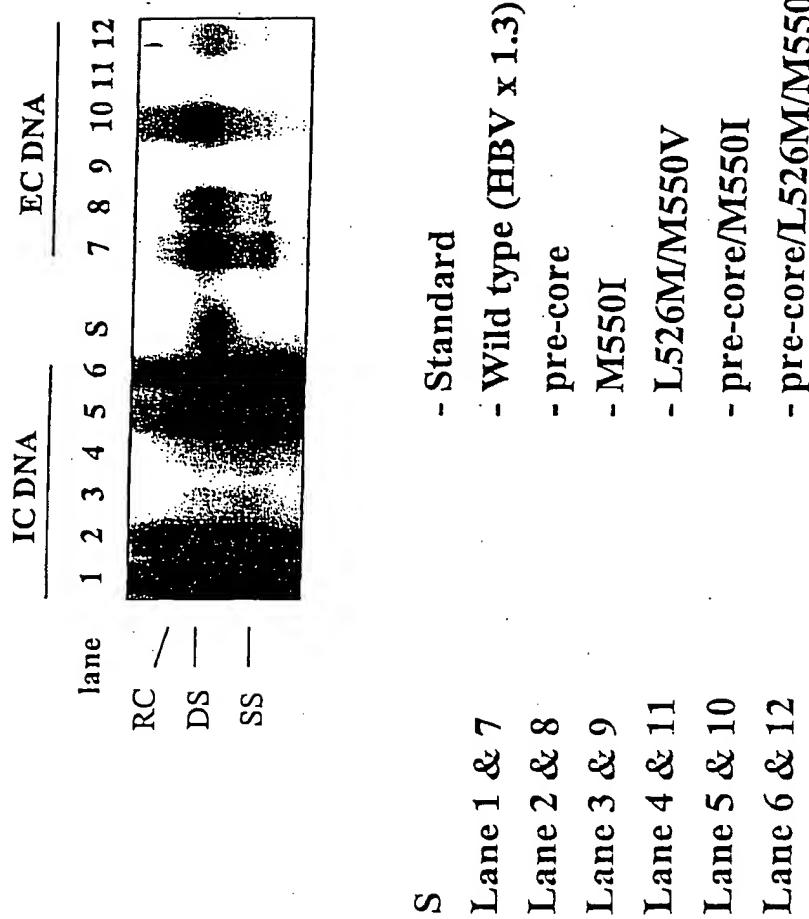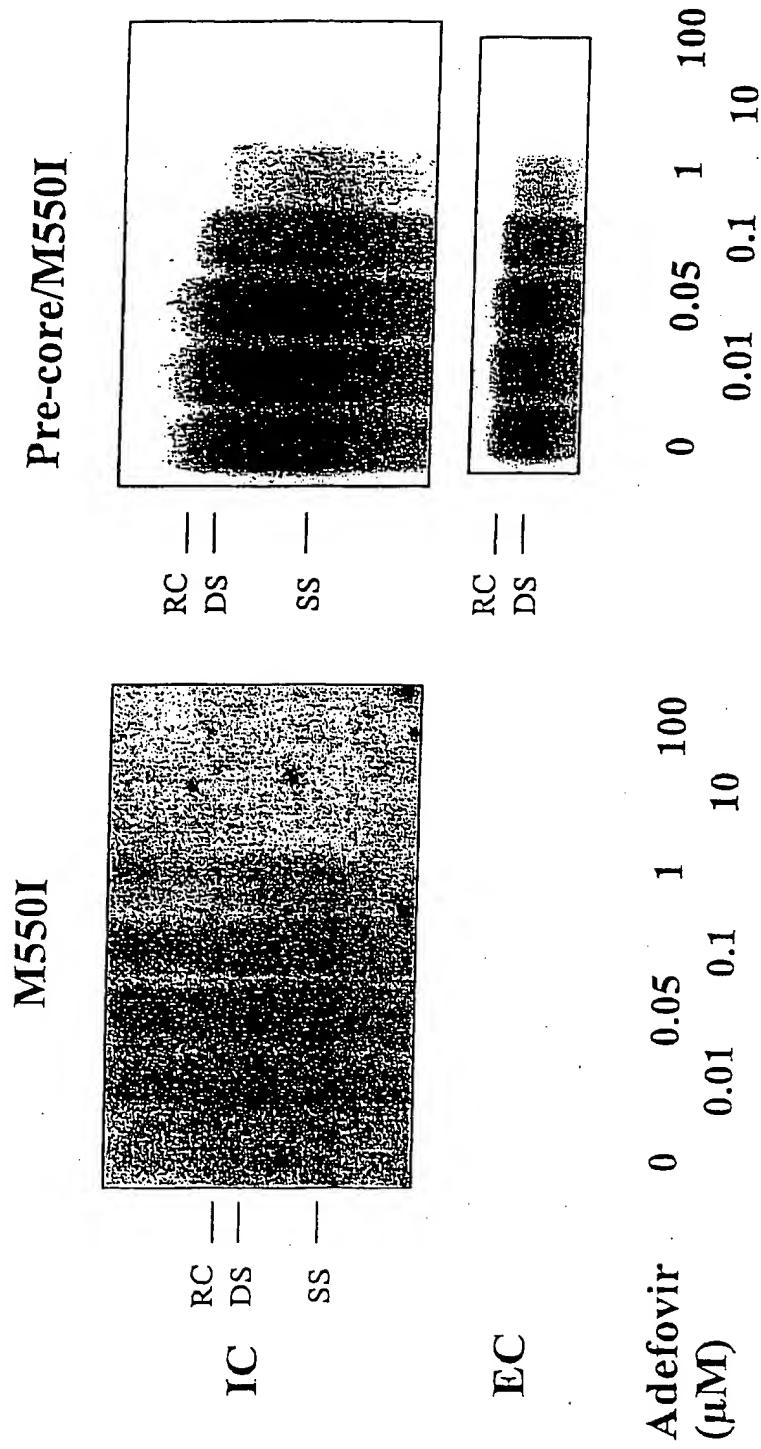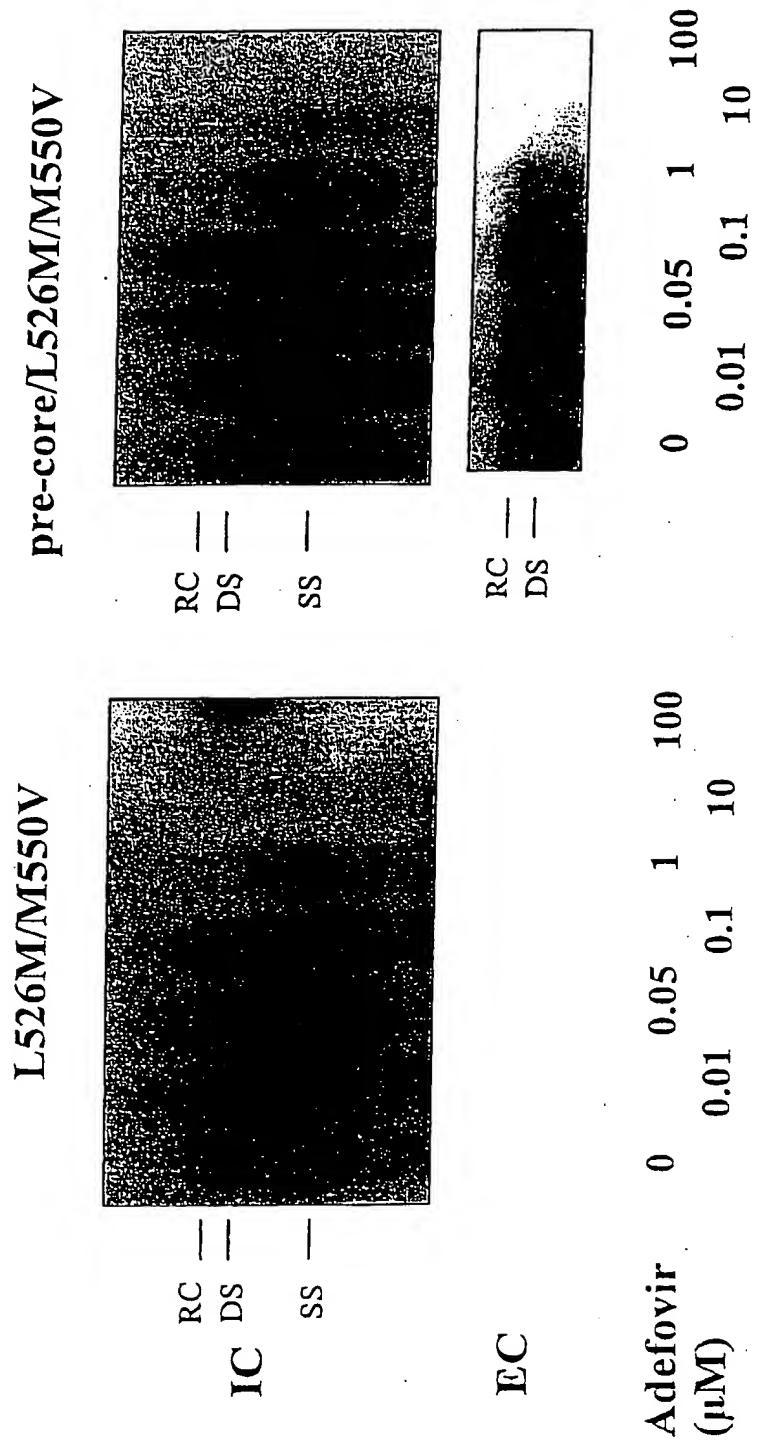
Figure 12

Figure 13A
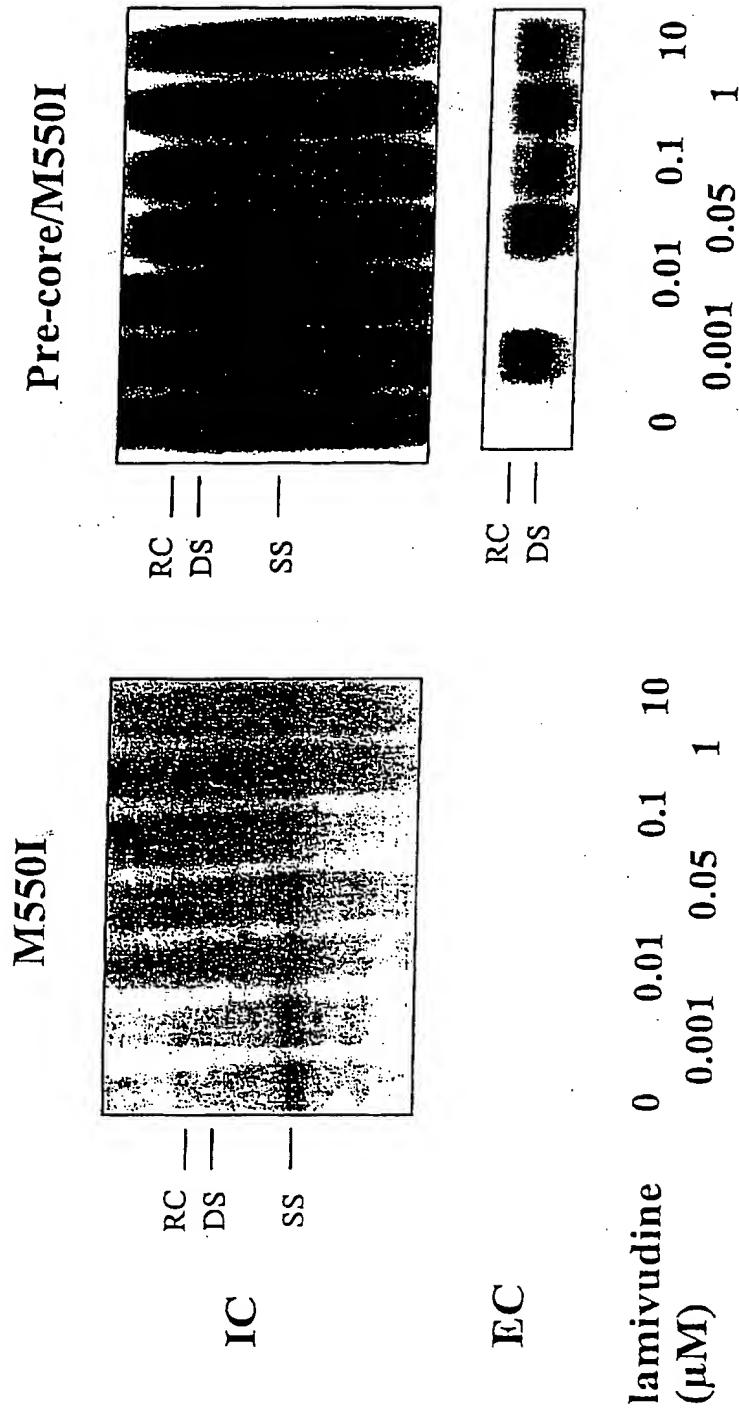
Figure 13B

Figure 13C

Figure 13D

Figure 13E

Figure 13F